WEST VALLEY CITY
Community and Economic Development Department
Planning and Zoning Division

Water Efficient Landscape Worksheets

http://www.wvc-ut.gov
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revised 3/06

Purpose of the checklist.
This checklist is provided to assist Landscape Architects and Landscape Designers in preparing Planting and Irrigation Plans that will comply with the City's landscaping standards. The checklist is derived from the City's Water Efficient Landscape Ordinance. Certain items may not pertain to your project. Please contact the City's Planning Department for additional information.

Who can prepare landscaping plans?
Landscape Plans must be prepared by a licenced Landscape Architect registered to practice in the State of Utah or a Landscape Designer certified by the Utah Nursery and Landscape Association (UNLA).

Who can prepare irrigation plans?
Irrigation Plans must be prepared by an Irrigation Designer certified by the Irrigation Association (IA) or by a Landscape Architect licensed to practice in Utah.

When are landscaping plans submitted?
If planning approval is required for a project (i.e. site plan review, use permit, or planned development), a conceptual Planting Plan is usually required with the development plans submitted to the Planning Department. The conceptual Planting Plan should indicate: general plant sizes, and locations; plant massing to comply with zoning standards, water conservation standards, and design guidelines; trees to be preserved or removed; and a suggested plant palette.

Following planning approval, a project data sheet, detailed Planting Plan, Irrigation Plan and Grading Plan, Soils Report, and Irrigation Water Allowance calculations are to be submitted to the Building Division along with plans for a building permit, unless otherwise specified in the planning approval. Issuance of a building permit is contingent on approval of landscaping documents by the City.

Who can install irrigation systems?
Irrigation systems must be installed by an Irrigation Contractor certified by the Irrigation Association (IA).

What is required at completion of landscaping?
An irrigation schedule and Certificate of Substantial Completion, which shall be prepared by the Landscape Architect or Landscape Designer must be submitted to the City.

Planting Plan

- ☐ Location of all proposed plant materials.
- ☐ Legend summarizing botanical and common names, and size of all plant materials.
- ☐ Property lines and street names.
- ☐ Existing and proposed buildings, structures, retaining walls, fences, utilities, paved areas, and other site improvements.
- ☐ Existing trees and plant materials to be removed and retained.
- ☐ Contour lines and/or spot elevations as necessary for the proposed finished grade.
- ☐ Details and specifications for tree staking, soil preparation, and other planting work.
- ☐ Where applicable, specifications for stockpiling and reapplying site topsoil and/or imported topsoil.

Irrigation Plan

- ☐ Layout of the irrigation system, (i.e. irrigation water meter, backflow prevention device, pressure regulator, automatic controller, main and lateral lines, valves, Sprinklers, Bubblers, Drip Emitters, quick couplers, and filters where applicable.)
- ☐ Legend summarizing the manufacturer name, model number, and size of all components of the irrigation system.
- ☐ Static water pressure (psi) at the point of connection.
- ☐ Flow rate (gallon per minute) and design operating pressure (psi) for each valve; also Precipitation Rate (inches per hour) for each valve with sprinklers.
- ☐ Installation details for irrigation components.

Grading Plan

- ☐ Existing and proposed buildings, structures, retaining walls, fences, utilities, paved areas, and other site improvements.

- ☐ Existing and finished contour lines and spot elevations as necessary for the proposed site improvements.

Soils Report

- ☐ Report shall be prepared by a qualified soil laboratory. Recommendations for soils amendments shall be indicated on Planting Plan.

- ☐ Report shall describe the depth, composition, and bulk density of the top soil and subsoil.

Irrigation Water Allowance Calculations

- ☐ Landscape Water Allowance

- ☐ Irrigation Schedule to be submitted when landscaping is completed, prior to the release of bonds.

- ☐ Certificate of Substantial Completion shall be submitted when landscaping is completed, prior to the release of bonds.

- ☐ Plants well-suited to microclimate and soil conditions at site, require minimal water once established, are relatively free from pests and diseases, and are generally easy to maintain.
- ☐ Plants with similar water needs are grouped together.
- ☐ Water-Conserving Plants on slopes exceeding 33 percent.
- ☐ Pre-emergent herbicide and minimum four-inches of mulch specified on plans.
- ☐ Automatic controller provided with multiple program and repeat cycle capabilities, automatic rain shut-off device, and a flexible calendar program.
- ☐ On slopes over 33 percent, irrigation system shall consist of Drip Emitters, Bubblers or Sprinklers with a maximum Precipitation Rate of 0.85 inches per hour and adjusted sprinkler cycle times to eliminate Runoff.
- ☐ Each valve irrigates area with similar site, slope, and soil conditions and plants with similar water needs.
- ☐ Turf and non-turf areas irrigated on separate valves.
- ☐ Drip Emitters and Sprinklers on separate valves. Drip Emitters or a Bubbler provided to each tree, Bubblers maximum 1.5 gallons per minute. Bubblers for trees placed on separate valves, unless otherwise permitted by City. Drip irrigation undergrounded, except for temporary installations.
- ☐ Sprinklers have matched Precipitation Rate within each valve.
- ☐ Check valves specified where low-head drainage will occur due to elevation differences.
- ☐ Pressure compensating valves and sprinklers specified where significant variation in water pressure will occur.
- ☐ Sprinklers spaced at maximum 1.0 times radius of head for square spacing.
- ☐ Pressure regulator provided where static water pressure exceeds manufacturers maximum recommended operating pressure for the sprinkler heads.

Specific Instructions:

A.	Valve or Station Number	Shall correspond to Irrigation Plan.
B.	Plant Type	Indicate either: T - Trees only WC - Water-Conserving trees, shrubs, and/or Ground Cover ND - Non-Drought Tolerant trees, shrubs, and/or Ground Cover GC - Ground Cover only L - Turf
C.	Irrigation Type	Indicate either: SP - Spray Sprinklers ST - Stream Sprinkler B - Bubblers D - Drip Emitters
D.	Flow Rate	Indicate total gallons per minute or hour flowing through valve during normal operation (available on irrigation plan).
E.	Precipitation Rate	For valves indicate the average Precipitation Rate in inches per hour (available on Irrigation Plan, from irrigation manufacturer, or through water audit).
F.	Month	Begin irrigation schedule with the month the landscaping is completed.
G.	Run Time	Indicate total minutes per day valve will be operating.
H.	Number of Day/Week	Indicate the number of days per week valve will be scheduled to operate.

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Water Allowance Worksheet

Project Title: _____

Project Location: _____

Property Owner: _____

Mailing Address: _____ Phone #: _____

_____ City, Zip Code: _____

Applicants Name: _____

Mailing Address: _____ Phone #: _____

_____ City, Zip Code: _____

Applicants Agent: _____

Mailing Address: _____ Phone #: _____

_____ City, Zip Code: _____

Landscape Architect / Designer: _____

Mailing Address: _____ Phone #: _____

_____ City, Zip Code: _____

Landscape Contractor: _____

Mailing Address: _____ Phone #: _____

_____ City, Zip Code: _____

Landscape Water Allowance

Total Irrigated Landscape Area (square feet)	
X	
Annual ET for Landscaped Area (inches per year)	
X 0.62	
Landscape Water Allowance (gallons per year)	

Irrigation Schedule

General Instructions:

A monthly irrigation schedule shall be prepared to cover the initial 120-day plant establishment period and the following one-year period. The irrigation schedule shall be prepared by a Landscape Architect or Landscape Designer. Attached is a suggested form for the irrigation schedule. The preparer may use this form or follow another appropriate format.

The schedule should rely on monthly Reference Evapotranspiration (ET_o) data for the Salt Lake County area. Once established, Turf can be maintained in an attractive manner at approximately 100 percent of the ET_o rate under normal weather conditions. Water-Conserving Plants typically need 50 percent or less of the ET_o under normal weather conditions. The amount of water applied for each valve should also be adjusted for Irrigation Efficiency, local rainfall, specific site conditions (e.g. exposure, slope, etc.) depths of root zone, and soil conditions (e.g., water holding capacity, and infiltration rate). Ultimately, the amount and frequency of irrigation will need to be monitored regularly to adjust for plant growth, climatic changes, and site conditions.

For valves with overhead Spray or Stream Sprinklers, set valves to operate between 9 P.M. and 8 A.M. to reduce water loss from wind and evaporation. Early morning irrigation is recommended for turf and ground cover. On slopes and soils with slow infiltration rates, program valves for multiple repeat cycles to reduce runoff.

Estimated Monthly ET_o for Salt Lake County Area

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual ET_o
0.00	0.29	0.86	2.01	3.59	5.07	6.92	6.01	3.70	1.90	0.59	0.23	31.17

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Certificate of Substantial Completion

Project Title: _____

Project Location: _____

I/We hereby certify the following:

1. The Landscape Plan Documentation Package has been certified by a Designer;

2. The landscaping work for the above project has been completed in substantial conformance to the City approved Planting and Irrigation Plans and specifications;

3. The automatic controller has been set according to the approved irrigation schedule for the plant establishment period;

4. A copy of the irrigation schedule has been given to the property owner.

Comments: _____

_____

_____

_____

This Certification prepared by:

Signature: _____ Date: _____

Company: _____ Phone #: _____

Address: _____

_____ License #: _____

Water Audit Certified by (optional):

Signature: _____ Date: _____

Company: _____ Phone #: _____